



Parahyangan Catholic University
Faculty of Political and Social Sciences
Department of International Relations

Accredited A

SK BAN – PT NO: 3095/SK/BAN-PT/Akred/S/VIII/2019

**The Significance of Civic Engagement for Achieving the EU's
Renewable Energy Transition**

Thesis

Proposed for Undergraduate Thesis Defense Examination

By

Lady Zaenab Miftadi

2017330108

Bandung

2020



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Yulius Purwadi Hermawan., Ph.D.

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2020

Fakultas Ilmu Sosial dan Ilmu Politik
Jurusan Hubungan Internasional
Program Studi Ilmu Hubungan Internasional



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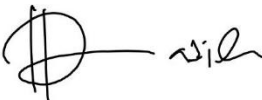
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Renewable Energy Transition

Hereby assert that this thesis proposal is the product of my own research, and it has not been previously proposed for the same purpose by any other academics or party. Any information, ideas, and facts gained are officially cited in accordance with the valid scientific writing method.

I declare these statements with full responsibility and I am willing to take any consequences given by the prevailing rules if this research to be found invalid, or of this statement is found to be untrue.

Bandung, 14 January 2021



Lady Zaenab Miftadi

ABSTRACT

Name : Lady Zaenab Miftadi
Student ID : 2017330108
Title : The Significance of Civic Engagement for Achieving the EU's
Renewable Energy Transition

Civic engagement is taken into account in European Union's renewable energy transition as stated in the Clean Energy for all Europeans Package and Energy Union regulation. These regulations still face challenges in its implementation such as low public trust in government, unreachd national renewable energy target and insufficient civic engagement. This qualitative research answers the identified civic engagement anomaly through the research question "what are the significance of civic engagement in achieving effective EU sustainable energy transition?" In the light of green political theory and neo-liberal institutionalism. The theories describe civic engagement in the EU with a reformist and multi-level cooperation principle. It also considers the contributions from 2 forms of civic engagement for instance, energy community as an invented participation and Interreg programme as an invited participation.

This research has concluded that both forms of civic engagements are significant in the socio-economic contributions to the EU's renewable energy transition. It is evident that the energy communities contributed to the transition by adding renewable energy production, extending renewable energy distribution, and proven significant in giving economic aspects and social benefits such as through energy poverty solidarity program, feed-in tariff and investment for increasing public income, and provides capacity building for the citizens with Energy Cafes. Civic engagement in Interreg Programme contributed to the socio-economic aspects of the renewable energy transition by leveraging civic engagement, ensuring national authority compliance for the renewable energy transition, and providing inclusive and comprehensive economic framework through capacity building for energy policy professionalism, transnational knowledge - sharing, FIREPOL, CAN, Interreg Med Ecosystem Transition Unit, and Interreg *Co2mmunity*. Civic engagement significance for renewable energy production can be boosted in the future through the current socio-economic development, as projected in 2050.

Keywords : civic engagement, renewable energy transition, European Union

ABSTRAK

Nama : Lady Zaenab Miftadi

NPM : 2017330108

Judul : Signifikansi Keterlibatan Warga Negara dalam Mencapai Transisi Energi Terbarukan di Uni Eropa

Keterlibatan sipil telah diperhitungkan dalam transisi energi terbarukan Uni Eropa seperti yang dinyatakan dalam *Clean Energy for All Europeans Package* dan peraturan Uni Energi. Peraturan tersebut masih menghadapi tantangan dalam implementasinya seperti rendahnya kepercayaan publik kepada pemerintah, target energi terbarukan nasional yang tidak tercapai dan kurangnya keterlibatan masyarakat. Penelitian kualitatif ini menjawab anomali keterlibatan sipil yang diidentifikasi melalui pertanyaan penelitian "Seberapa signifikan keterlibatan sipil dalam mencapai transisi energi berkelanjutan Uni Eropa yang efektif?" dengan teori politik hijau dan prinsip neoliberal institusionalisme. Teori tersebut menggambarkan keterlibatan sipil di Uni Eropa dengan prinsip reformis dan kerja sama multi-level. Penelitian ini juga mempertimbangkan kontribusi dari 2 bentuk keterlibatan sipil misalnya, komunitas energi sebagai partisipasi yang diciptakan dan program Interreg sebagai partisipasi yang diundang.

Penelitian ini menyimpulkan bahwa kedua bentuk keterlibatan sipil signifikan dalam kontribusinya untuk aspek sosial ekonomi di transisi energi terbarukan di UE. Terbukti bahwa komunitas energi berkontribusi pada transisi dengan menambahkan produksi energi terbarukan, memperluas distribusi energi terbarukan, dan terbukti signifikan dalam memberikan manfaat ekonomi dan sosial seperti melalui program solidaritas kemiskinan energi, feed-in tariff dan investasi untuk meningkatkan pendapatan masyarakat, dan menyediakan peningkatan kapasitas bagi warga dengan program Kafe Energi. Keterlibatan sipil dalam Program Interreg berkontribusi pada aspek sosial-ekonomi dari transisi energi terbarukan dengan meningkatkan keterlibatan sipil, memastikan kepatuhan otoritas nasional untuk transisi energi terbarukan, dan menyediakan kerangka kerja ekonomi yang inklusif dan komprehensif melalui pembangunan kapasitas untuk profesionalisme kebijakan energi, pertukaran pengetahuan secara transnasional, FIREPOL, CAN, *Interreg Med Ecosystem Transition Unit*, dan *Interreg Co2mmunity*. Signifikansi keterlibatan masyarakat untuk produksi energi terbarukan dapat ditingkatkan di masa depan melalui pembangunan sosial-ekonomi saat ini, seperti yang diproyeksikan pada tahun 2050.

Kata kunci: keterlibatan masyarakat, transisi energi terbarukan, Uni Eropa

PREFACE

This thesis titled *The Significance of Civic Engagement for Achieving the EU's Renewable Energy Transition* is written as a requirement to achieve an undergraduate degree in International Relations, Faculty of Social and Political Sciences, Parahyangan Catholic University, Bandung, Indonesia.

This thesis seeks to analyze the significance of civic engagement which is fostered in European Union multi-level governance to achieve regional targets for sustainable energy transition. Also the thesis hopes to spotlight the importance of inclusive and bottom-up approach renewable energy transition that is attempted at regional level.

The author realizes that this thesis is far from perfection and further research is necessary to complement a whole understanding of the research problem. Hence, the author is open to all forms of suggestions, criticisms, and recommendations to improve this research.

Bandung, 14 January 2021

Lady Zaenab Miftadi

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In Allah S.W.T grace, I heed my humblest gratitude to be let live, let love and given the strength to complete one of life's greatest endeavours.

عُسْرٌ يُسْرٌ إِنَّ مَعَ الْعُسْرِ يُسْرًا

Verily with every hardship comes ease (Quran 94:6)

To my parents **Miftadi Sudjai and Khusnul Khotimah,**

Words will never be adequate to express my endless gratitude for raising me and for your immense support throughout the process. Thank you very much for everything.

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It is my greatest honor to be supervised under your wing, for I will not have reached the finest level without your humble support. Thank you very much for your words of encouragement, your dedication to assist me throughout the process of the making of my thesis in providing immaculate directions and achieving perfection.

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To all the kind souls I encounter in my university life, firstly for the community I have great and memorable adventures with during the short 2 years, **Greenate members and friends Daniel, Raffi, Chintya, Abigail, Jose, Rushella, Mayang, Cindy, Rey, Lydia,** and **many others**, thank you so much for bringing bright colours to my life, your dedication and great passion, it has inspired me to my future goal for the environment.

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I only hope for all blessings that life could offer.

TABLE OF CONTENTS

ABSTRACT.....	i
ABSTRAK	ii
PREFACE	iii
ACKNOWLEDGMENT.....	iv
TABLE OF CONTENTS	vi
LIST OF GRAPHS.....	viii
LIST OF TABLE.....	ix
LIST OF FIGURES.	x
LIST OF ABBREVIATIONS	xi
CHAPTER 1 INTRODUCTION.....	1
1.1 Research Background	1
1.2 Problem Identification	3
1.2.1 Description	3
1.2.2 Scope of Research	4
1.2.3 Research Question.....	6
1.3 Aim and Contribution of Research	6
1.3.1 Research Aim	6
1.3.2 Research Contribution.....	7
1.4 Literature Review	8
1.5 Theoretical Framework	11
1.6 Research Methodology and Data Collection Technique.....	16
1.6.1 Research Methodology.....	16
1.6.2 Data Collection Technique.....	17
1.7 Thesis Structure.....	18
CHAPTER 2 EUROPEAN UNION RENEWABLE ENERGY TRANSITION POTENTIAL AND CHALLENGES.....	20
2.1 Background of the European Union Renewable Energy Transition.....	20
2.1.1 EU’s Initiative for Energy Cooperation Energy.....	20
2.1.2 EU Interest towards Renewable Energy	22
2.2 Renewable Energy Potential and Usage in Europe.....	23
2.2.1 Solar Energy.....	24
2.2.2 Wind Energy.....	25
2.2.3 Hydro Energy.....	27
2.2.4 Bio Energy.....	28
2.3 Challenges in Renewable Energy Transition in European Union	30

2.3.1	Trust for Institutional Renewable Energy Transition	30
2.3.2	Lack of Public Facilitation	32
2.3.3	Disparity in National Policy Implementation.....	34
2.3.4	EU Renewable Energy Market Challenges.....	36
2.4	European Union Governance for Renewable Energy Transition.....	37
2.4.1	Directives.....	37
2.4.2	Institutions.....	43
CHAPTER 3 CIVIC ENGAGEMENT CONTRIBUTION TO EU RENEWABLE ENERGY TRANSITION.....		49
3.1	EU's Achievement for Renewable Energy Targets.....	49
3.2	Civic engagement significance towards EU Renewable Energy transition..	51
3.2.1	Civic Engagement from Energy Communities.....	52
3.2.1.1	Energy Community Contribution to Renewable Energy Production.....	58
3.2.1.2	Energy Communities Contribution to Renewable Energy Distribution.....	59
3.2.1.3	Energy Community Contribution to the Economic Aspects of Energy Transition.....	60
3.2.1.4	Energy Community Contribution to EU Energy Transition Social Values.....	62
3.2.1.5	The Outcome of Energy Communities Contributions.....	63
3.2.2	Civic Engagement from Interreg Programme.....	68
3.2.2.1	Transnational actors and its relations in Interreg program...	69
3.2.2.2	Interreg Programme Leverages Civic Engagement in the Renewable Energy Transition.....	72
3.2.2.3	Interreg Programme Ensures National Compliance to EU Inclusive Energy Transition.....	74
3.2.2.4	Interreg Programme Assist Comprehensive Economic Procedures of the Renewable Energy Transition.....	75
3.2.2.5	The Outcome of Interreg Programme Contributions.....	77
3.3	Civic Engagement in the Light of Neo-liberal Institutionalism and Green Political Theory.....	79
CHAPTER 4 CONCLUSION		83
BIBLIOGRAPHY.....		87

LIST OF GRAPHS

Graph 2.2.1	: Solar Installed Capacity in EU 2000-2019.....	25
Graph 2.2.3	: Economically Feasible Hydropower Potential.....	27
Graph 2.2.4	: Total Domestic Agriculture Bioenergy Potential per Country in 2020 in EU.....	29
Graph 2.2.5	: Installed Geothermal Power and Annual Production in EU in 2019.....	28
Graph 3.1	: Share of Energy from Renewable Sources in the EU Member States 2018 Eurostat.....	50
Graph 3.2.1.5	: The Potential of Energy Citizens Contribution to Renewable Energy Production in 2050.....	66
Graph 3.2.2	: Multilevel Actors in EU Renewable Energy Governance.....	70
Graph 3.3	: EU Regional Governance Pyramid for Renewable Energy Transition Inspired by Karns and Mingst Global Governance Theory.....	80

LIST OF TABLES

Table 2.4.1	: Directives European Union Governance for Renewable Energy Transition.....	38
Table 2.4.2	: The EU Institutions Involved in the Renewable Energy Transition.....	43

LIST OF FIGURES

Figure 2.2.1	: Map of Solar Radiation Potential in Europe.....	24
Figure 2.2.2	: Potential Power Production in Different Wind Conditions in Europe....	26
Figure 3.2.1	: Energy Communities Distribution in EU in 2019.....	53
Figure 3.2.1.	: Social Innovation Energy Communities Distribution in Germany.....	55
Figure 3.2.1.	: Social Innovation Energy Communities Distribution in Sweden.....	57

LIST OF ABBREVIATIONS

RE	: Renewable Energy
RED	: Renewable Energy Directives
EU	: European Union
CE	: Community Energy
Interreg MED	: Interreg Mediterranean
UNFCCC	: United Nations
OECD	: The Organisation for Economic Co-operation and Development
ETI	:Energy Transition Index
WEF	: World Economic Forum
TSO	:Transmission System Operators
DSO	:Distribution System Operators
ERDF	: European Regional Development Fund
NREAP	: National Renewable Energy Action Plans
REC	:Renewable Energy Community
TFEU	: Treaty on the Functioning of the European Union
IGA	: InterGovernmental Agreement
GWh	: GigaWatt per hour
KWh	: KiloWatt per hour
PV	: PhotoVoltaic
EV	: Electric Vehicle
CIP	: Community Initiative Programme
NGO	:Non-Governmental Organizations
AN	: Accelerator Network
UK	: United Kingdom
ECCOs	: Energy Community Co-Operatives

ACCESS	: Advancing Communities towards low Carbon Energy Smart system
ETU	: Ecosystem Transition Unit
RENCOP	: Renewable Energy Cooperative Partnership
EMPOWER 2.0	: Enabling More Peoples OWnership in Energy tRansition
POTENT	: Public Organization Transform Energy Transition
I-SEM	: Integrated Single Electricity Market
PPA	: Power Purchase Agreement
FIRESPOL	: Financial Instrument for Renewable Energy Investment
CAN	: Climate Active Neighbourhoods

CHAPTER 1

INTRODUCTION

1.1 Research Background

Climate change is the number one most impactful and most likely threat recently according to the Global Risk Index 2020 which requires an utmost attention by global citizens.¹ Reports of climate disasters, exponential rise of global temperature including thermal frost in the north pole with immense cost in economic, social and environment sectors are increasingly a familiar trend 2020 and it shows countries are not on track to evade 1.5 degrees Celsius global temperature increase according to the Paris Agreement.² The United Nations Convention on Climate Change (UNFCCC) publishes reports "Climate Action and Support Trends 2019", stating today's temperature has reached 1.1 degrees Celsius increase, thus all world actors only have 11 meaningful years to act before an irreversible point is reached with uncontrollable climate global disasters and possibly earlier, depending on human activities.³ The report delivers the requisite goals of every country to do all possible efforts to suppress the global temperature below 1.5 degrees Celsius as the minimum barrier and 2 degrees Celsius as the intolerable barrier within the next decade 2030, for countries to reach net zero carbon and neutrality by 2050.⁴

According to International Energy Agency (IEA) data 2019, one notorious sector responsible as the contributor to 0.3 degree Celsius out of the total of 1 degree Celsius rise in global temperature is the energy sector particularly caused by emissions from coal and fossil

¹ "Global Risk Index 2020: Edition 15th", World Economic Forum, 2020. Pg 2.

² "2020 on track to be one of three warmest years on record: WMO Press Release on December", World Meteorological Organization, 2020.

³ "Climate Action and Support Trends 2019, UNFCCC, 2019. Pg 2.

⁴ https://unfccc.int/sites/default/files/resource/Climate_Action_Support_Trends_2019.pdf

⁴ Ibid.

fuel.⁵ The effort to combat climate change will be significantly achieved through the focus on reforming global energy sectors where fossil fuels at the heart of energy mix is replaced by sustainable energy sources with infinite supply and zero greenhouse emission. Transitioning to sustainable energy, no longer an alternative but a required practice, is not as highly costly as the rumors says but requires allocation and reconfiguration of existing investment for fossil fuel towards investment, assets, and infrastructure requirements for renewable energy which still pose challenges and coupled with concrete political will and public support to drive the transition.⁶ However it is very desirable, as the long-term benefits are a sustainable reserve of clean energy, emission reduction for cleaner air and stable environment, more reliable energy security with the increasing energy demands, cost-efficiency, increased employment opportunity and social and economic welfare, cut reliance on imported oil and thus save a fair amount of expenditure.⁷

In a deeper insight, the success of an institutionalised transition for renewable energy is not only relying on technical or scientific conduct but rather on political will and commitment of decision makers to enact democratized and decentralized energy systems to allow more participation from the public as well as other relevant stakeholders.⁸ It is more effective to not rely on a single state authority or centralized source as it is insufficient to ensure flexibility and resilient energy supply that decentralized energy could offer and also it is more volatile to tension-building from the excluded civic involvement and rising prices.⁹ In this realization, European Union enables civic participation to actively contribute to the

⁵ IEA, "Global Energy & CO2 Status Report 2019", International Energy Association, 2019.

⁶ Thomas Pellerin-Carlin et la, "Making the Energy Transition a european Success: Tackling the Democratic, Innovation, Financing and Social Challenges of the Energy Union", Notre Europe Jacques Delores Institute, 2017. Pg 9-10.

⁷ IRENA, "Global Energy Transformation: A roadmap to 2050", International Renewable Energy Agency, 2018. Pg 16-17.

⁸ Matthew J. Burke and Jennie C. Stephens, "Political power and renewable energy futures: A critical review", from Energy Research and Social Science book, Volume 35, January 2018, Pg 92, <https://doi.org/10.1016/j.erss.2017.10.018>

⁹ Ibid.

renewable energy transition. This is explicitly stated in the EU Energy Union policy vision that citizen are a vital actor to acquire ownership, technologies for affordable price, active actors in the energy market, and inclusivity in the energy transition process.¹⁰ This formalized acknowledgement of civic engagement gives a better spotlight of existing civic initiatives for renewable energy activities which has been widely practiced since the start of 21st century with varying forms and numbers amongst EU member states.¹¹ The civic active involvement and acceptance is deeply integrated with the common goals for reaching the regional and national renewable targets, where the transition is also intended to be the tools for economic growth, increasing citizen inclusivity, welfare, and job creation in the Clean Energy for All Europeans package pursuit for a ‘ Just Energy Transition’.¹² Collective-based civic activities such as energy communities and Interreg programs in several countries have contributions to achieve these goals. This can be considered through how civic engagement fits into the measurements conducted by European Union, although in the awareness of the measurement reliability to depict the throughout aspects of renewable energy transition in EU.

1.2 Problem Identification

This thesis is constructed with the motivation to gain understanding of an identified problem or anomaly in the research topic. By determining a specific issue, the research is more focused and well-directed in the matters of civic engagement. The problem identification consists of description, scope of research and the research question.

1.2.1 Description

¹⁰ Communication from the Commission to the European Parliament et la, “Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy”, 2015. <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52015DC0080&from=EN>

¹¹ Chiara Candelise and Gianluca Ruggieri, “Status and Evolution of the Community Energy Sector in Italy”, MDPI, 2020.Pg 2.

¹² Communication from the Commission, “ Clean Energy for All Europeans”, 2016. <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52016DC0860&rid=5>

This thesis has indicated an anomaly that there is a disharmony between the numbers of civic engagement in the country and the country's achievement to reach its renewable energy target. Firstly, the initial assumption is EU efforts for enabling civic engagement and energy decentralization is to assist in reaching renewable energy targets in the just transition. Although, the country with large numbers of energy communities such as Germany, Netherlands, and UK, according to the Joint Research Centre report, have not in fact reached their national renewable energy target trajectory in 2018 from Eurostat database.¹³ Yet from the same database in the same year 2018, countries that did surpass their renewable energy target such as Sweden with the highest RE shares in the EU have a far lesser number of energy communities than the said countries from the same report.¹⁴ This indicates an inconsistency in energy community impact towards country achievement for RE target. However as stated in the Eurostat diagram, the Eurostat database only considers gross final renewable energy consumption to determine its target attainment and thus have not fully represented the EU vision for renewable energy transition that also includes fair, just, and economic development goals.¹⁵ This research seeks to understand civic engagement significance and contributions that play a role in the many aspects of the EU energy transition that the Eurostat database have not indicated.

1.2.2 Scope of Research

The exploration of the research is within a designated framework and scope of analysis. The level of analysis is firstly in regional level to determine EU regional policy and institutions for civic engagement and secondly in sub-national level to determine national

¹³ Aura Caramizaru, "Energy communities: an Overview of Energy and Social Innovation", JRC Science for Policy Report, 2020. Pg 5.

"Renewable Energy Statistics: Statistics explained 2018", Eurostat, published January 2020.
<https://ec.europa.eu/eurostat/statistics->

¹⁴ Ibid.

¹⁵ Ibid.

implementation through sub national bodies that is civic engagement institution. The varieties and actors which are involved in the attainment of the research objective are regulations, regional bodies decision-makers, multi-stakeholder and especially two civic engagements are examined, for instance Interreg program and energy community. The two forms of civic engagement are chosen based on civic engagement conception on project- based category that is firstly *Invented participation* or self-establish initiative that is energy community and secondly *invited participation* or citizens being invited to ready-made civic engagement frameworks with other stakeholders that is EU Interreg program.¹⁶ To analyze its significance, the contributions of these two forms of civic engagement to the EU energy transition are described. The scope of the impact is within European Union context. In terms of renewable potential and usage in EU, the common and feasible renewable energy sources usage by civic communities are solar, wind, bioenergy and hydropower which is further elaborated in chapter 2.¹⁷ Several examples of energy communities are taken from 3 chosen countries for instance, Sweden, Denmark, and Germany. These countries are used only to portray the sub national bodies or energy communities in the country and do not represent national level. These specific countries are also chosen because of its relevance to the mentioned anomaly that point out the number of energy communities dissonance with renewable energy target achievement of the country. Sweden has the highest RE shares but has a far lesser energy community. Germany has the highest number of energy communities but has not reached the target in the same year. Denmark has a fair amount of energy community and has reached its target. There are numerous energy communities in each of these countries and the one being exemplified are just several study cases. The topic focuses on the formal written regulations, way of interactions, facts on existing civic engagement,

¹⁶ Ortwin Renn et al, "The Role of Public Participation in Energy Transitions", Academic Press 2020, 2020.

¹⁷ Aura Caramizaru, "Energy communities: an Overview of Energy and Social Innovation", JRC Science for Policy Report, 2020. Pg 25.

and political theory encompassing transition to sustainable energy and climate change agenda setting, instead of energy sectors in general nor business perspective. This is in reference to the Energy Transition Index by the World Economic Forum as well as author identification on specific civic engagement evident and implications. In terms of timeframe, the topic discussion is based on existing data until the current 2020 and the latest data available.

1.2.3 Research Question

The research topic aims to be the corridor of thinking and provides direction in the effort to build a comprehensive identification, addressing inclusive conducts to combat imminent risks that threaten international stability namely climate change. The question proposes a realistic set of conducts and insights regarding the identification of probable obstacles which are required to be tackled for actualizing effective regional-scale climate action. The research question is as follows,

“What are the significance of civic engagement in achieving effective EU sustainable energy transition ? “

The above research question directs the forthcoming research agenda to contribute to a solutive political structure perspective. It aims to fill the gaps within the progressive efforts for sustainable energy actions by international actors, within international relations context.

1.3 Research Objective and Contribution

The making of this thesis is driven by a specific objective based on writers’ genuine interest and passion as well as the foreseen beneficial contribution for the society apart from fulfilling the study requirement. The details are as follows.

1.3.1 Research Objective

The research project aims to analyse the connecting factor as well as the social construct of pre-existing civic engagement within the EU regional initiative for transition to renewable energy. This intended to lead to profound comprehension of civic engagement dimensions such as borne from regional supranational entities, EU, as well as bottom up approach from the community in congruent to a common goal of achieving renewable energy transition targets. It hopes to highlight and map how significance is civil society involvement and in what forms of engagement that may lead to more effective civic contribution, such as via multilevel channel. Furthermore, the best practice becomes a parameter in which originated from the successfully established bottom-up approach program and environmental governance by European Union. Thus in this research, it is hypothetically expected that the sustainable policies, methods, and program from the EU could be a realistic parameter and learning materials to be utilised by other regional bodies to gain ideas of civic engagement forms as well as recommendations for effective and inclusive sustainable energy transition.

1.3.2 Research Contribution

Thus the research outcome serves as a beneficial input to spotlight the importance of civic engagement towards the global movement and concrete progress for climate action. The notion supports the proposal in which the area focuses on the ideal ramification of governmental policies and construct conducted through regional institutions as well as bottom up approach to prove as it serves the most profound impact, resources and processes regarding the transition to renewable sustainability. The concept about citizen communities as well as collaboration framework amongst inclusive stakeholders which is supported by Interreg programme, is foreseen to provide an academic preposition for other regional bodies to enable a betterment for its environmental management effectiveness, seeing the authoritative capacity of regional bodies shall be optimized. The research ultimately

contributes to the better comprehension of civic engagement dimensions in regional sustainable energy governance. It hopes that the research may be reproduced to inspire standardised policies globally as to accelerate global combat for climate change and foresee regionalism effectiveness to create profound transitions.

1.4 Literature Review

The topic brought upon through this research has no resembling journal or other research after a thorough scanning in the repository and scholars. The proposal is analysed using literature according to the importance of the aim of this research which supports the eligibility of the proposed topic.

The first literature aims to portray regionalism governance especially in the attempt to establish permanent transition to sustainable energy sources. It is according to the journal titled "*Sub-national government and pathways to sustainable energy*" constructed by Richard Cowell and other authors in 2017.¹⁸ The journal conveys the discussion and research regarding the political governmental processes in establishing an integrated sustainable energy provision with fair consideration towards the relations amongst sub-national governments and the complexity of factors and facilities which are required to be transformed or massively replaced in the process of transition to sustainable energy. The journal alleviates the recognition regarding a fragmented control towards energy sectors, eligible by state, private enterprise, developer, logistics, supplier and the less connected civil society. This phenomenon typically appears in democratic countries with more rights to ownership, variety in markets, and freedom of consumerism. The journal further implies the interdependency between these sectors and stakeholders in order to achieve a synergy action of sustainable

¹⁸ Tiffany H Morrison, "Pursuing rural sustainability at the regional level: Key lessons from the literature on institutions, integration, and the environment", 2006.

energy transition. Once inclusivity established by decentralised government, the writer gathered that energy policies for sustainable energy framework will be able to be affected across a variety of energy sectors, stakeholders and innovators driven by the established uniform goals of the state for the transition. Such decentralised government practice can amplifies the public confidence building efforts better to rally for consent in the implementation of potentially new sustainable infrastructure and conducts. Public consent is one of the key factors in energy policy dissemination. Therefore, the journal expresses similar conception towards the required horizontal and inclusive multilevel energy transition.

The subject of the research is the well -established program of European Union namely INTERREG program or a regional collaboration incubator which act as a role model for the intended knowledge transferral for other regional bodies to implement, in order to disseminate effective energy policies and practice worldwide. The following is elaborated in the second literature as titled " *OECD Review Regional Innovation Regions and Innovation Collaborating Across Borders: Governing Cross- Border Collaboration in Interreg Program* " elaborates the bodies of the European Territorial Collaboration or namely Interreg Program since 1989, its establishment.¹⁹ The Interreg program serves as a regional program to support and manage the funding, the substantial development and implementation of proposed regional projects by civil society or private enterprises. Since the fourth phase of the program, Interreg has been given the honour to be one of the pillars of Europe Cohesion Policy and explore more urgent issues such as environmental concern. The literature offer viewpoint that the project-based program surely impact the connection amongst grassroot actor in cross borders region but still lacking efficiency to generate a high impact outcome or facilities for the trans border regions, which also face shortcoming in the administrative

¹⁹OECD, "OECD Reviews of Regional Innovation Regions and Innovation Collaborating across Borders: Collaborating across Borders", 2013.

procedures between the rules of the project with the intended country as well as provision of expertise in different places or requirement of the innovation project. This European Union-owned program primacy is very apparent for instance in its integration and close collaboration amongst its member states, and at an advantage for having a higher authority than the state which is EU council and commission. Also the established Interreg program structure has been equipped with profound funding and capacity building mechanisms to help boost the bottom up projects for further the initiatives are a direct input towards government decision making and selected programmes.

The third literature is exploring the relations between civic engagement and regionalism from "*Handbook on the Geographies of Regions and Territories*" book by Anssi Paasi and John Harrison in 2018. The section on regionalism and civic engagement suggests that the non-partisanship of regional goals and institutions may leads to better civic engagement such as triggering public participation, activeness, empowers the local as it pursues a common goal, and enables them to conduct check and balance. This can be established through regional decision-making influence towards national and sub -national governance to enact a closer relations with the citizens and subdue any political interest or unnecessary barriers towards civic achievement for fulfilling regional democracy goals. In turns, civic engagement movement capable of creating sub-national bodies arranged by a shared identity, values, and governance which propel an opportunity for institutional change and betterment through their inputs for suitable public services for local needs for example. The resulting decentralization plays as a vital democracy instrument with benefits such as empowering larger populations with well-informed political involvement, allowing government to better facilitate socio and economic needs arranged or proposed by the citizens, and more decentralized and effective development. This literature also suggests a suitable leadership style to manifest this in the face of global challenges, networking society, and regional common goals. It is not a

centralized bureaucratic leadership from the central national government but facilitative leadership from the local or city political leader which is more effective in accommodating close relations with the authority, collecting the local public engagement, and different society levels to achieve and direct a goal agenda and inclusive decision making.²⁰

The three literature mentioned have showcased a consistent approval of the proposed framework in regards to the need of knowledge transferral for worldwide effective eco policy implementation starting from the EU Interreg program. The three literature stand on its own position and this research pursuit is to link between the three informations to construct a vital solution to the world's slow progression towards environmental policies, especially for sustainable energy reformation. The research fills the gap regarding the EU transitional sustainable energy and the possible underlying political construct and scientific reason which is addressed further using the International Relation scholar theoretical framework.

1.5 Theoretical Framework

This undergraduate thesis utilizes a theoretical framework from International Relations scholars in order to maintain a political and institutionalised perspective in solving for the betterment of environmental governance. The essential idea of optimizing regional institutions cooperation amongst member states, EU institutions and other multi level stakeholders for shared goals similarly reflects a Neo liberal institutionalism paradigm which holds the ideal that global challenges such as climate change and prevention of tension can only be tackled through peaceful cooperation of international institutions. After the foundation of thinking is established, the agenda is inserted as the required securitization

²⁰ Anssi Paasi and John Harrison, "Handbook on the Geographies of Regions and Territories", Cheltenham: Edward Elgar Publishing, 2018. Pg 220-224.

aspect in this research that is the highlight on environmental interest and governance within political conducts for instance a green theory.

Neo-Liberal institutionalism provides the base paradigm to analyse the topic research because it highlights regional cooperation and institutionalised bodies to strive for shared goals. The function of this theory aims for establishing a systematic international conduct in mediating tension or potential conflict amongst states for instance caused by terrorism attacks from alledged country of origin. The necessity for international jurisdiction stemmed from the underlying belief that states still adopt a neo-conservative foreign policy agenda which may cause conflicts or not suitable with international mechanism in diplomacy, peace making, and trade system. The institutionalism enables the implementation of uniform value, conducts, and set regulations with the possible new proposed agenda which is brought upon the decision making by the member states where such compromise is a challenge if established by a single state alone. Essentially, the effective make-up of neo-liberal institutionalism constitute of 5 intelligent agendas for instance institutional design, domestic politics and international institutions, historical institution, multi-level governance and ideas.²¹ Liberal Institution is proposed to be the remedy of the negative impacts to anarchic system where state-interest prevails, through the construction of supranational governance when the members gather at concrete platforms to better negotiate and seek solutions towards collective issues and goals more effectively.

Both Neoliberal Institution and Green theory combined produce in Green Politics Theory and it will serve as the base theory in the research analysis. Green Politics Theory upholding environmental issues development associated with the drive for institutional political reform and international economic collaboration. In recent years, the international

²¹ Arthur A Stein, " Neo-Liberal Institutionalism: The Oxford Handbook on International Relations", 2008.

agenda for climate change has shifted from a sideline marginalized issue into becoming the centre of global politics and seeks urgent policy making reform. Increasing intensity of environmental degradations are being frequently exposed through media and public awareness, leading to higher demand for an environmentally-oriented approach by the government to enact greener economic development and renewable resources.²² One of the modern international environmental politics, Matthew Paterson differentiates green politics to environmentalists who stated that the existing global political structure and capitalism is the actual cause of the violation towards the environment and led to climate change. Therefore relying on the structure alone proposed to be less solutive, as mirroring to environmentalist views. International Environmental Politics, namely Green politics theory, constitute three characteristics for instance ecocentric ethics, limits to growth and the decentralization of power.²³

Furthermore, there are 2 principles in green political theory such as reformist and radical. Reformist ecology utilizes the existing structure and norm of modern capitalism to tackle environmental degradation issues seen as externality which limits growth therefore directed to be *anthropocentrism* or human focus in securing economic growth. Reformist approach would imply green taxes, green technology, and transnational regulation to manage the *tragedy of commons* or greedy action towards resources.²⁴ It also constructs a multilateral global collective action for solving the agenda although the flaw appears in the emergence of free riders or passive members. While radical ecology places the nature balance and deep ecology central to its principle and perceives the existing value, structure and institution of modern capitalism itself is the root problem of environmental degradation. Thus radicals

²² Dimitar Panchev, "Why is green theory becoming popular in international politics at the current time?", Academia, 2015.

²³ Matthew Paterson, "Environmental Politics:Sustainability and the politics of Transformation", 2005.

²⁴ Andrew Heywood, " Global Politics: Global Environmental Issues", 2011. Pg 388 - 389.

presumes the social structure shall be radically changed based on the principle of ecosocialism, ecoanarchism, lastly eco-feminism.²⁵

Civic engagement is action-oriented public participation in both political and non-political activities with the aim to address community concern or development for the future to make a positive change.²⁶ There are 3 factors which drives public interest for civic engagement.²⁷ For instance voluntarism where the citizen has resources to be involved and their voices is counted on, social capital that is community involvement increases trust and networking, and lastly rationality that is a civic reasoning of whether their involvement will be beneficial that gain greater return than their initial cost.²⁸ The cultivated trust or social capital in civic engagement collectives will result in easier problem resolving and gain more benefits from collective cooperation.²⁹

According to frequently cited literature, civic engagement is defined into 19 indicators of citizen participation with 3 categories for instance, civic, electoral, and political voice involvement.³⁰ Civic and political voice indicators are relevant to this thesis. Briefly, civic indicators involve voluntarism activities for community service, problem-solving or development activities with the community, membership in community associations, charity and fundraising.³¹ Political voices to influence policies include visiting and contacting authorities or decision makers, making a written petition or policy proposals, and

²⁵ *Ibid*, Pg 389 - 390.

²⁶ Thomas Ehrlich, "Civic responsibility and higher education", Greenwood Publishing Group: Westport, 2000. Pg vi.

²⁷ Paul Whiteley, "Citizenship and Civic Engagement: Attitudes and Behaviours in Britain", *Political Studies*: 2003 Vol 51, Pg 443-445.

²⁸ *Ibid*.

²⁹ Naim Kapucu, "Social Capital and Civic Engagement", *International Journal of Social Inquiry*: Vol 4 No.1 2011, Pg 25.

³⁰ Scott Keeter et al, " The civic and political health of the nation: A generational portrait ", Center for information and research on civic learning and engagement (CIRCLE), The Pew Research Centre for the people and the Press George Mason University: New Jersey, 2002. Pg 3.

³¹ *Ibid*.

protesting.³² According to Arnstein Ladder of Participation, the ladder stages can be fitted into the two forms of civic engagement. Firstly, energy community or self-established civic engagement is included in the “degrees of citizen power” stage which involves role in delegation of power, citizen control, and equal footing partnership with local enterprise and authorities within their own association.³³ While Interreg programme or invited participation which is established by incumbents is included in 'degrees of tokenship' stage involving informing, placation or a representative to participate in giving inputs, and consultation with the decision makers impacting a wider scope but the role is only influencing regulations.³⁴

Indicators to measure effectiveness and significance in this thesis have incorporated indicators from the Energy Transition Index established by the World Economic Forum and several suggestions relevant to the topic. Firstly, WEF established a measurement for effectiveness namely Energy Transition Index. The index states that energy transition is required to ensure different stakeholders are prioritized in their needs adhering to the balance of 3 energy system principles for instance energy security and access, economic growth and development, and environment sustainability.³⁵ ETI further builds parameters for country readiness in energy transitions stability in the form of 6 determinants as follows, regulation and political commitment, human capital and consumer participation, institution and governance, energy system structure, capital and investment, and lastly infrastructure and innovative business environment.³⁶ It is evident that many of the transition enablers are

³² Ibid.

³³ S. R Arnstein, "A ladder of Citizen Participation", Journal of the American Institute of Planners, (35)4, 1969, Pg 216-224.

³⁴ Ibid.

³⁵ "Energy Transition Index 2020: from crisis to rebound Report", World Economic Forum, 2020.<https://www.weforum.org/reports/fostering-effective-energy-transition-2020>

³⁶ Ibid.

outside of technical energy system scope such as, in direct relevance to this thesis, consumer participation, regulation and political commitment, and institution and governance.

Furthermore to determine effectiveness of energy transition, the author believes that indicating EU progress towards its renewable energy target as well as the significant transitioning from fossil fuel usage towards cleaner renewable energy are also ideal parameters. In terms of civic engagement parameter, the author marks the significance of civic engagement through factual evidence of citizen adherence within EU governance, citizen-led activities and participation that contributes to the renewable energy transition in the energy community and Interreg program. In general understanding, regional governance effectiveness is measured by the neat mechanism of problem solving, coordinations, and implementations of the initiatives, assurance of compliance and consequences, public response, and lastly governance adaptation and management capability which outweigh the formally written commitment or regulation.³⁷

1.6 Research Methodology and Data Collection Technique

This academic thesis utilizes appropriate research methodology and data collection technique to support the pursuit for objective and academic findings in this research.

1.6.1 Research Methodology

The Validity of the research objective is supported by the gathered data and proper research methodology to attain the possible solution for regional knowledge sharing in the transitional sustainable energy initiative. Research framework utilizes a qualitative method of analysis due to the subjective focus on the political construct of actuating the goals.

³⁷ Margaret P. Karns and Karen A. Mingst, " International Organization: the politics and processes of global governance", lynne Rienner Publishers: London, 2004.Pg 33 and 147.

Qualitative method importance lies in the quality, characteristic, and value analysis which contribute to the extraction of meaning, comprehension and a subjective causal regarding the issue. The method allows observation on relations amongst government or institution to institution, and also with civil society and private stakeholders, As well with characteristics and structure between two different regions with emphasis on differentiation of cultural, norms, value, and way of conduct. Particularly to this research topic, Environmental Research is applied through 6 research steps firstly to identify an important theoretical question such as assessing the prior uninvestigated policies and relationship. Second, developing hypotheses and identifying variables. Third, selecting cases and observations. Fourth step is linking data and propositions such as identifying effectiveness, values and relations amongst data provided through indicators of variables. Fifth, examining explanatory pathways for evaluating the implication between explanatory variables against provided evidence. Sixth is also referring to cases as a method to increase external validity.³⁸

Furthermore, the research type brought upon by this topic is an explorative style by means seeking to find comprehensive perspective and recommendation. Explorative type is analysing and further suggesting a new alternative of conducts which highlight several actors on an issue that has not adequately been addressed previously. Thus it has the tendency to have or not to have the desired outcome due to the unexplored ground but still hopeful in the availability of the supporting data.

1.6.2 Data Collection Technique

Through the aforementioned conceptual methods, then proceed on the technique to acquire the datas and information. Secondary sources is optimized to provide the validation

³⁸ Ronald B Mitchell et la, " A Quantitative Analysis ofin International Environmental Policy", Pg 92- 96. Edited by Detlef F Sprintz and Yael Wolinsky. "Cases, Numbers, Models: International Research Method, 2002.

and supporting or disapproving the proposed idea, anyhow provide a factual conclusion. Secondary source is attained through official reports published by both regional institutions as well as the affiliated projects and other stakeholders, through the research project on sustainable energy transition by International environmental think tank, official statement through previous Inter-regional summit, agreement or meetings by the authority in regional bodies, obtained also from media news report in which have direct reportage on the site or interview of the institution.

The type of data aimed to be gathered depends on the stakeholder and overall serves as a confidence booster, further insight and direct approval or disapproval of the proposed idea by the affiliated parties. The contact via email correspondent is aimed to be conducted for European parties relevant to the topic. The second method is public survey regarding the general knowledge and view on the urgency as well as the public commitment for sustainable energy transition. The survey is intended as the fulfilment to the scope of this research which to accommodate a bottom up approach or otherwise mean a domestic and grassroots consideration on the issue for regional policies decision making. It is also intended to map existing public motivation on the topic, detecting any potential grassroots movement and initiative in regards to the reformation of energy and industry sectors to apply sustainable energy.

1.7 Thesis Structure

This research consisting of four chapters elaborates the process on reaching findings in regards to "**EU Interreg Program in regards to Regional Body Bottom up Approach for Transitional Sustainable Energy**". The structure is as follows:

- Chapter One : This chapter contains the background research of the topics and the foundation of research structure before diving into the substantial analysis.

- Chapter Two : This chapter addresses the background of EU energy transition initiatives, the existing renewable energy potential in the region, the challenges that impede optimization of renewables potential and enacting energy transition, as well as EU governance in addressing civic engagement in renewable energy transition.
- Chapter Three : This chapter provides tangible proof of civic engagement contribution to EU renewable energy transition backed by proof of EU progress in renewable energy transition effectiveness. The chapter also explores the implications of civic engagement significance referring to the energy community and Interreg program as well as theory analysis.
- Chapter Four : Conclusion